

MINUTES

COUNCIL ON RECYCLING AUGUST 23, 2005 FOREST PRODUCTS LABORATORY 1 GIFFORD PINCHOT DR MADISON, WISCONSIN

Council Members Present: Neil Peters-Michaud; John Reindl; Cecelia Stencil;
William Swift; Charlotte Zieve

Council Members Absent: Jeff Fielkow; John Piotrowski.

Also attending: Carl Houtman, Forest Products Laboratory; Kim McCutcheon, DNR; Cynthia Moore, DNR; Joe Van Rossum, UW-Extension- SHWEC.

Call To Order: The meeting was called to order by Chair John Reindl at 9:05 AM

Introduction and Announcements: John Reindl said that he had contacted Sen. Harsdorf's staff about the used oil filter and absorbent issue. Sen. Harsdorf staff said they were not familiar with the report but they were familiar with the history. Rep. Ott's office was familiar with the report but said that they would let Sen. Harsdorf take the lead. He offered the two legislators the assistance of the Council. Reindl said that he met with DNR, SHWEC and UW-GB staff to discuss moving this issue forward.

Reindl said the Governor has announced the Task Force on Waste Materials Recovery and Disposal. The Task Force is to look at how the state should handle solid waste in the future and look at the externalities of waste management and how to stimulate waste reduction and improve management of toxic and non-toxic waste. The Task Force has 18 members including 2 from the Council- Jeff Fielkow and John Reindl. The first meeting is August 31.

The state budget has been signed. The Recycling fund had transfers totaling over \$30M but there will not be any reduction in the funding for local programs.

Minutes: Approval of the Minutes of June 21, 2005. Charlotte Zieve moved, Neil Peters-Michaud seconded. Minutes approved without amendment.

Reports

DNR: Cynthia Moore, DNR, said that the new recycling rules are in effect and guidance is being developed. Moore said that haulers had been sent material covering the new rules. They will also receive information when they renew their licenses. Moore said she is also planning on attending statewide haulers association meetings. Charlotte Zieve said she was worried about the non-banned materials, such as computers and other electronics. Moore said that was more complicated since those materials are not banned from landfills if disposed of by households but are banned from landfills if disposed of by businesses. Moore said that the DNR is creating brochures on starting an e-waste recycling business and a checklist of questions for generators to ask a potential hauler. The DNR is also working on a brochure for the general public explaining why individuals should care about the issue and what to do about it.

Reindl said that the Product Stewardship Institute (PSI) is a national organization working on a number of product stewardship issues. They are holding a conference call on electronics but it costs \$150.00 to participate on each call. Zieve said a national bill was needed. Reindl said that the problem with national legislation was that national organizations have a lot of clout and it can be very difficult. Individuals have more clout at the state and local level. He said that Illinois has passed legislation to study the electronics issue.

Paper: Jeff Fielkow was ill and therefore was not able to report.

Electronics: Zieve said that she reviewed a draft of the general public information brochure had prepared. She was concerned about a sentence that said that all e-waste should be considered hazardous waste. Moore said the DNR was reviewing that statement and would rewrite it in the next draft. Zieve asked what the speculative accumulation section meant. Moore said that the term was inserted to address situations where e-scrap was accumulated by recyclers with no clear ability to process or sell the material. The DNR does not want these materials to be held onto for years and years. In other states companies have held on to the material for years and, when no market developed, the owners simply abandoned the material. Peters-Michaud said that the provisions made sense, especially since most companies charge for picking up the material. Reindl said that this has been a problem in the past with other materials, most notably tires. He suggested that the section be rewritten to be clearer to the average person. Zieve said more education was needed. Moore said that these brochures are part of the education effort. Peters-Michaud said that the infrastructure was developing. He strongly supported this type of education campaign.

Peters-Michaud said that the state of Minnesota postponed their landfill ban on electronics for a year, until July 1, 2006. He said that Minnesota had a strong program that was paid for by the tipping fee, which is quite hefty. They are picking up about 3 million pounds of material per year. That could be up to 100,000 computers but a lot of the weight is from TV's. Their RFP for the project is 92 pages. It is pushing the industry to be more responsible. Peters-Michaud said that Congress was holding hearings on the issue. The Pacific Northwest was pushing for an advanced recovery fee deposited with a third party organization. Moore said that there is a group of state agency staff looking at developing a Midwest organization. MN, IA, WI, IL, MI, and IN are involved in the effort. The idea is to create model legislation that can be agreed to by a whole region. That would be a benefit to the companies as well as to the states. She said that they are hoping to have model legislation ready by February.

Construction & Demolition: Kim McCutcheon, DNR construction and development industry sector specialist, said that she is a problem solver and is doing outreach to encourage recycling of C&D materials. She is working on getting exemptions for companies to recycle a number of materials. She has created two fact sheets. One is for using drywall gypsum as an agricultural gypsum substitute. The second is for engineered wood. She is working on a best management practices manual for shingles and a manual on-site drywall application.

McCutcheon said that the Green Tier program recognizes superior environmental performances. She is currently working on a charter for the Development Council, which is a subgroup of the Wisconsin Builders Association. It is focused on stormwater and erosion control initially but it has language on recycling and other site issues. On a regional basis, south central region is working on a charter for construction sites, including recycling, with home builder Veridian Homes taking the lead. She said that WasteCap is taking the lead in distributing information. She is developing materials at this time.

McCutcheon said that she is working on beneficial reuse issues. The focus is sustainable cement, especially using fly ash and foundry sand. Moore said that sustainable cement is cement made with more industrial by-products. The cement is redesigned to use fewer virgin materials. Reindl said that DNR had a good seminar on this issue. It was heavy on contractors but few municipalities. McCutcheon said she is searching for ways to create baselines for materials. The waste sort is the best information that she has. Moore said that about 20% of all waste is C&D. Of that, about ½ is wood. She said he didn't know the generation rate. DNR and WasteCap have applied to EPA for a grant to do training, tracking and to develop a baseline.

McCutcheon said there are several problems. One problem is finding long term markets. Another is the cost effectiveness of recycling certain materials. Shingles, for example, can be used as sub base for roads but that may not be the cheapest alternative. Another problem is having consistent standards. You need standards for application to get the benefits. Beneficial reuse should not be disguised disposal.

Peters-Michaud says that green building is getting easier. His company is building a new green building and this process is much simpler than the previous one. McCutcheon says that green building materials are being branded. That will help sales. Peters-Michaud says that the

material must be quality materials. As trust is built the sales will go up. Moore said that haulers are worried about liability issues and they like to see the recycling.

Mercury in Products: Reindl said he attended a national conference on mercury. He said that the northeast is a hot spot because of climate, geography and geology. Mercury tends to settle in the area. There are 3 different types of mercury: metallic, inorganic and organic. Organic is the most dangerous. Micro organisms convert metallic mercury into organic mercury. Neuro-toxicity studies attempt to put a dollar value on mercury effects. The studies put the cost at \$2.2 billion to 43.8 billion a year. They look at the cost of pounds of mercury to society and put that at \$1,000-\$66,000/lb. They also looked at cardio-vascular impact on adults. A Finnish study found that the death rate was twice as high for people with high mercury levels. It is clear that there is an economic impact from mercury. Reindl said that most people have mercury thermostats in their homes. The 3.5 grams of mercury that the typical thermostat holds has an environmental cost of about \$100. There is two and one-half times more mercury released to the environment each year from products in Wisconsin than is released from state power plants.

Reindl said that landfills also have problems. The anerobic bacteria convert metallic mercury to organic mercury. New landfill designs, such as bio-reactors, may exacerbate the problem. When burned in the gas recovery system, the organic mercury does become metallic or inorganic, but nature can again re-convert it back to organic mercury..

Reindl said that over 400 bills have been introduced throughout the country relating to mercury in products. The most popular is forcing the auto manufacturers to pay for the cost for the removal of hood and trunk light switches. The next most popular legislative action is to ban mercury in thermometers. Mercury in vaccines is another major area of legislation. Moore said that the DNR has a staff person working on this issue. There is no legislation proposed in Wisconsin at this time. Reindl distributed a list of the legislation (available from Reindl). Reindl said that mercury was in an amazing number of products, including traffic lights, elevators, gas meters etc. There are no real disposal options. The mercury is being recycled and there is more mercury available than is being used in commerce. So far there is no legislation to sequester the mercury. At least there are no active mercury mines. Reindl said that Dane County has taken a stand that the state should ban the sale of products with mercury except for fluorescent lights and dental amalgam. Prior to the imposition of the ban Dane County recommends that retailers be required to take back old products. Dane County has such an ordinance for fluorescent lamps and thermostats. Currently there is no tracking mechanism in Dane County's ordinance but they have had good success in meeting with retailers. Members wanted to know how mercury was being disposed of at this time. Peters-Michaud suggested that we visit the Onyx facility in Port Washington at a future meeting.

Public Comment: None.

Forest Products Laboratory, Advances in Adhesive: Carl Houtman, Forest Products Laboratory Senior Researcher, said that the US Postal Service use 14% of all the pressure sensitive adhesives used in the US. He has been working on 'stickies' for about six years. A large fraction of adhesives end up in recycling stream. They include labels, address and return labels, flap closers and more. They cause problems mainly by sticking to the machinery. This is the number one contamination issue for paper recyclers. Several years ago the estimated cost to paper companies was \$700 million a year. He made a power point presentation that explained the process of making paper and showed why stickies were a problem. There are two major problems. One is aggregation and clogging of machinery. The second is when some of the stickies are carried on to the sheet. That leaves a mark, called a fish eye. That affects the quality of the paper. One way to attack the issue is chemically. You can put chemicals in the mix that adheres to the stickies and keeps them from adhering to the paper. The FPL took a different tack. They are trying to make an adhesive that is compatible with recycling.

In 1994, the USPS started looking for alternatives. With the research from FPL, USPS developed new specifications for pressure sensitive adhesives. Those specifications require that the paper be compatible with recycling. FPL is the testing lab for USPS. The Euro Stickies Project is broader in scope. Their goal is that any product, phone books, mailers etc., must be compatible

with recycling. Since there are many countries involved, it has gone slowly. Another project is from the Tag and Label Manufacturers Institute (TMLI). They want to set standards for labels. That project is going slowly.

Houtman said that repulpable adhesives sound good but haven't worked. The water loop is too tight in a modern mill. Instead, they are using slotted screens and get the material of the system as early as possible. The USPS tested 15 good adhesives and did a pilot testing in mills. Two of the materials caused problems in the test. The pilot plant also picked up problems so that verified the accuracy of the pilot. Adhesives that passed the test and are compatible with recycling do exist. The problem is that the cost to retool is significant and that makes it unlikely that an older mill will try new adhesives.

Houtman said that the paper it was stuck to made a difference as well. To determine how well a material does, you must test on material that is going to be used, not on a model.

Houtman said that they are also working on acrylic materials. The macro problems are being solved. The new problem is 'micro stickies'. They are small and getting through the screens. Other solvents in the mix are causing problems.

Houtman said that wax in OCC is still a problem. They are working on making a wax that is compatible with recycling.

Houtman said that a well run kraft mill is a net energy generator. The paper industry may be a net energy generator.

Recycling compatible labels do exist but you have to ask for it. There is a Federal Executive Order mandating the use of recycling compatible adhesives but it is not being carried through throughout the country. Zieve said that there should be a federal law requiring recycling compatible labels. Reindl said that we should not wait and each of us should work on the issue on the local level. He suggested that each of us contact national groups that send labels and ask them to switch to recycling compatible labels. Houtman said that market problems exist. Small companies find it difficult to change. With large companies, any change costs productivity. Reindl suggested a symbol saying that the material is recycling compatible. Houtman said that TMLI is working on a certification. He said that the USPS deserves a lot of credit for pushing this change. It was a big and bold step on their part.

Council members discussed whether the Council should go on record supporting the purchase of paper recycling compatible pressure sensitive adhesives by state and local governments. Reindl suggested waiting to the next meeting when John Piotrowski could be available and offered to draft a resolution on recycling compatible stickies for consideration

Other Business

The next Council meeting is scheduled for October 25, 2005, at the Mercury Waste Solutions administrative offices, 21211 Durand Ave., Union Grove. A tour of the Mercury Waste Solutions plant will follow the tour. After the Union Grove meeting, the next Council meeting will be in January, 2006.

Adjournment: Zieve moved and Swift seconded. The Council adjourned at 11:55 AM.

Respectfully submitted by Daniel B. Fields, Department of Natural Resources.